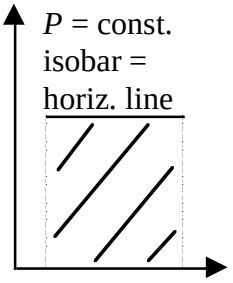
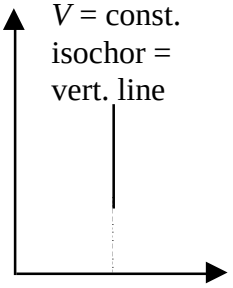
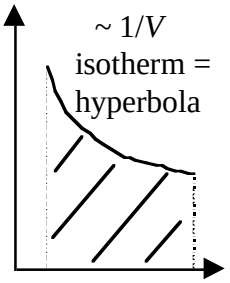
Four Thermal Processes for Ideal Gases—C.E. Mungan, Spring 1999

type	W	Q	ΔU	P–V graph
isobaric (constant P)	$P\Delta V = nR\Delta T$	$nC_P\Delta T$	$nC_V\Delta T$	
isochoric (constant V)	0	$nC_V\Delta T$	$nC_V\Delta T$	
isothermal (constant T)	$nRT\ln(V_f/V_i)$	$nRT\ln(V_f/V_i)$	0	
adiabatic (insulated or very rapid)	$-nC_V\Delta T$	0	$nC_V\Delta T$